No. 200100134

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Virginia Tech Intellectual Properties, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE R... STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'766'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this third day of December, in the year two thousand one.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary

REPRODUCE LOCALLY. ***Include form number and date on all reproductions*** Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
Virginia Tech Intellectual Properties, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
VA96W-351

2. VARIETY NAME
766

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
Virginia Tech Intellectual Properties, Inc.
1872 Pratt Dr., Ste.1625
Blacksburg, VA 24060

5. TELEPHONE *(include area code)*
540-951-9378

6. FAX *(include area code)*
540-951-5292

FOR OFFICIAL USE ONLY

PVPO NUMBER 200100134

FILING DATE
MARCH 19, 2001

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Virginia

9. DATE OF INCORPORATION
June 20, 1985

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Carl A. Griffey
Crop and Soil Environmental Sciences
Virginia Tech
Blacksburg, VA 24061-0404

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2450.00 + 255.00
3/19/01 4/2/01
DATE

CERTIFICATION FEE:
$ 320.00
DATE 10/04/01

11. TELEPHONE *(Include area code)*
540-231-9789

12. FAX *(Include area code)*
540-231-3431

13. E-MAIL
Cgriffey@vt.edu

14. CROP KIND *(Common Name)*
Wheat, Common

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. ☑ Exhibit A. Origin and Breeding History of the Variety
- b. ☑ Exhibit B. Statement of Distinctness
- c. ☑ Exhibit C. Objective Description of Variety
- d. ☑ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
- f. ☑ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
- g. ☑ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
☑ YES *(If "yes", answer items 20 and 21 below)* ☐ NO *(If "no," go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? ☑ YES ☐ NO
IF YES, WHICH CLASSES? ☑ FOUNDATION ☐ REGISTERED ☑ CERTIFIED

21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☑ NO
IF YES, SPECIFY THE NUMBER 1, 2, 3, *etc.* ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☑ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☑ NO
IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Michael J. Martin			
NAME *(Please print or type)* Michael J. Martin		NAME *(Please print or type)*	
CAPACITY OR TITLE Executive Vice President	DATE 3/9/01	CAPACITY OR TITLE	DATE

INSTRUCTIONS

200100134

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,450 ($300 filing fee and $2,150 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM

18a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

21. *See Section 83 of the Act for the Contents and Term of Plant Variety Protection.*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.*

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21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

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22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

Certified Seed of variety 766 will be first sold in Fall 2001.

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23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089.

766 Wheat
ADDENDUM

18A. Exhibit A: Origin and Breeding History

Genealogy and Breeding Method. The parentage of variety 766, formerly designated VA96W-351, is P81401A1-32-2/FFR555W. The parentage of P81401A1-32-2 is Arthur 71/Caldwell/4/Arthur 71/3/Benhur//Riley*2/W62-63-119A. The original cross was made in 1990, and the population was advanced using a modified bulk breeding method. The major criteria used in selection of variety 766 were resistance to powdery mildew (*Blumeria graminis*), short plant height and early head emergence. Variety 766 was derived as an F_5 headrow and was selected in 1995. It was tested in replicated yield trials in Virginia for three years (1997-1999).

Population Advancement and Selection of the Variety. The cross from which variety 766 was derived was completed in 1990. It was then advanced from the F_2 to the F_4 generation using a modified bulk breeding method. During each generation, spikes of desirable shape (not too tapering), size (medium to large), and cleanliness (free of obvious disease) were selected from plants short in stature and relatively early in maturity. The selected heads were threshed in bulk and the seed was planted to advance the population in the next season. In the F_4 generation, spikes were harvested from the population and threshed individually. Seed from each head were planted in 4-foot headrows. Variety 766 was derived in 1995 from a single F_5 headrow selected for early head emergence, short plant height and resistance to powdery mildew. This pure line, formerly designated VA96W-351, was evaluated in single 45 sq. ft. observation yield-plots in 1996. It was evaluated in replicated yield trials conducted in Virginia and North Carolina from 1997 to 1999.

Multiplication and Purification. Breeder seed of variety 766 was developed via removal of visual variants from a 0.20 acre F_8 purification block in 1997-98. Variety 766 has remained stable and uniform through three generations of self-pollination. Variants noted in the1999-2001 purification block include less than 1.5% taller plants, less than 1.0% plants with shorter or longer awns, and less than 0.05% plants with non-tapering heads.

766 Wheat

18B. Exhibit B: Novelty Statement

Variety 766 is uniquely different from all known wheat cultivars, but is most similar to its parent FFR555W. Variety 766 is resistant to powdery mildew having scores of zero (0-9 scale; where 0=No infection and 9=Complete leaf infection) in each of three years (1997-99) of testing at Warsaw, VA, while FFR555W is susceptible with scores of 6, 7 and 5 in the same tests (Tables 1A, 2A, 3A). Based on seedling tests conducted by the USDA-ARS Cereal Disease Lab, St. Paul, MN in 1997 and 1998, variety 766 is susceptible to stem rust (*Puccinia graminis*) race TPMK, while FFR555W is resistant. In field test conducted at Warsaw, VA in 1997, 1998 and 1999, head emergence of variety 766 was 6, 4 and 6 days earlier than FFR555W, respectively (Tables 1A, 2A, 3A).

Table 1A. Mean performance of VA96W-351 in the 1996-97 Preliminary Wheat Test in Warsaw, Virginia.

Entry	Line	Yield (bu/A)	Test Weight (Lb)	Date Headed (March 31+)	Height (in.)	Leaf Rust (0-9)[1]	Powdery Mildew (0-9)	WSSV (0-9)	BYDV (0-9)
1	VA96W-351	64.5	62.8	26	37	6	0	2	4
2	FFR 555W	53.9	60.2	32	37	7	6	2	4
3	Pioneer 2580	72.0	61.8	29	35	7	0	5	3
4	Massey	59.9	60.7	28	41	9	1	1	3
5	Saluda	41.2	62.8	34	35	7	5	6	6
6	Madison	62.6	60.1	25	37	8	1	0	3
7	Coker 9803	62.4	62.3	25	35	4	1	2	3
8	Gore	59.0	60.8	22	35	6	0	3	7
9	Pioneer 2643	68.4	62.0	25	31	7	0	3	3
10	Jackson	61.9	62.3	32	38	7	1	3	2
11	Coker 9835	63.4	60.7	30	33	2	2	2	3
LSD (0.05)		8.6	0.5	1	2	1	1	2	2
Test Avg.		62.0	60.8	28	36	7	0	2	4

[1] All 0-9 ratings indicate relative disease severity: 0 = no disease present; 9 = total infestation of the plant by disease.

2001 0134

Table 2A. Mean performance of VA96W-351 in the Advance Wheat Test, Warsaw, Virginia, 1998.

Entry	Rank	Line	Yield (bu/A)	Test Weight (Lb)	Date Headed (March 31+)	Height (in.)	Lodging (0.2-10)[1]	Powdery Mildew (0-9)[2]
1	5	VA96W-351	59.3	54.0	19	34	0.0	0
2	8	FFR 555W	50.0	51.8	23	35	0.0	7
3	1	Pioneer 2580	56.5	51.5	20	33	0.8	2
4	13	Massey	52.8	52.3	24	39	1.8	3
5	10	Jackson	59.3	54.3	22	35	1.3	5
6	16	Coker 9835	50.3	52.3	23	31	0.8	4
LSD (0.05)			5.3	0.9	1	1	1.1	1
Test Avg.			55.9	52.3	21	34	0.8	2

[1] Belgian lodging scale = Area x Intensity x 0.2. Area is rated on a scale from 1(plot unaffected) to 10 (entire plot affected and intensity is rated on a scale from 1 (plants standing upright) to 5 (plants lying totally flat on the ground).

[2] All 0-9 ratings indicate relative disease severity: 0 = no disease present; 9 = total infestation of the plant by disease.

Table 3A. Mean performance of VA96W-351 in the 1998-99 Advance Wheat Test in Warsaw, Virginia.

Entry	Line	Yield (bu/A)	Test Weight (Lb)	Date Headed (March 31+)	Height (in.)	Lodging (0.2-10)[1]	Winter Kill (0-9)	Powdery Mildew (0-9)[2]	BYDV (0-9)
1	VA96W-351	62.7	58.6	27	35	0.2	1	0	5
2	FFR 555W	51.1	58.0	33	32	0.2	3	5	6
3	Pioneer 2580	84.1	58.0	24	35	0.2	2	1	3
4	Pocahontas	77.8	58.7	24	34	0.2	1	1	2
5	Roane	80.9	60.8	32	32	0.2	0	0	2
6	Agripro Patton	68.0	58.4	29	36	0.2	0	2	4
7	Coker 9663	57.2	58.8	26	38	0.2	3	5	2
8	Madison	83.0	57.7	24	37	0.2	1	2	2
9	Pioneer 2643	75.8	58.6	25	30	0.2	1	0	3
LSD (0.05)		8.2	0.6	1	1	na	1	1	2
Test Avg.		74.8	58.5	28	34	0.2	1	1	3

[1] Belgian lodging scale = Area x Intensity x 0.2. Area is rated on a scale from 1(plot unaffected) to 10 (entire plot affected and intensity is rated on a scale from 1 (plants standing upright) to 5 (plants lying totally flat on the ground).

[2] All 0-9 ratings indicate relative disease severity: 0 = no disease present; 9 = total infestation of the plant by disease.

FORM APPROVED: OMB NO. 0581-0066

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*TRITICUM SPP.*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Virginia Tech Intellectual Properties, Inc.

ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)
Virginia Tech Intellectual Properties, Inc.
1872 Pratt Dr., Suite 1625
Blacksburg, VA 24060

FOR OFFICIAL USE ONLY
PVPO NUMBER 200100134

VARIETY NAME OR TEMPORARY DESIGNATION
766

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:
[1] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:
[2] 1 = SPRING 2 = WINTER 3 = OTHER (*Specify*) _____ [1] 1 = SOFT 2 = HARD 3 = OTHER (*Specify*) _____

[2] 1 = WHITE 2 = RED 3 = OTHER (*Specify*) _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:
[ ][ ][ ] FIRST FLOWERING [ ][ ][ ] LAST FLOWERING

4. MATURITY (*50% Flowering*):
[0][5] NO. OF DAYS *EARLIER* THAN ..... [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 7=FFR555W
[0][1] NO. OF DAYS *LATER* THAN ..... [8] 4 = LEMHI 5 = NUGAINES 6 = LEEDS 8=Pioneer 2643

5. PLANT HEIGHT (*From soil level to top of head*):
[0][9.2] CM. HIGH
[1][8] CM. TALLER THAN ..... [8]
[0][5] CM. SHORTER THAN ..... [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 7=Madison
4 = LEMHI 5 = NUGAINES 6 = LEEDS 8=Pioneer 2643

6. PLANT COLOR AT BOOTING (*See reverse*):
[2] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHER COLOR:
[1] 1 = YELLOW 2 = PURPLE

8. STEM:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom: 1 = ABSENT 2 = PRESENT
[2] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT
[1] Internodes: 1 = HOLLOW 2 = SOLID
[0][4] NO. OF NODES (*Originating from node above ground*)
[2][3] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[1] Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:
[2] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (*Specify*): _____
[2] Flag leaf: 1 = NOT TWISTED 2 = TWISTED
[2] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
[0][6] MM. LEAF WIDTH (*First leaf below flag leaf*)
[1][7] CM. LEAF LENGTH (*First leaf below flag leaf*):

FORM LMGS 470-6 (6-82) (Formerly Form LPGS 470-6 (3-79), which may be used)

2001001321

11. HEAD:

[3] Density: 1 = LAX 2 = DENSE 3=mid-dense

[1] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) _____

[2] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[2] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____

[0][7] CM. LENGTH

[1][1] MM. WIDTH

12. GLUMES AT MATURITY:

[2] Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)

[3] Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

[2] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[1] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

[1] 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

[1] 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

[2] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

[1] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[1] Cheek: 1 = ROUNDED 2 = ANGULAR

[1] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[4] Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[3] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

[0][7] MM. LENGTH

[0][4] MM. WIDTH

[2][7] GM. PER 1000 SEEDS

17. SEED CREASE:

[1] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

[2] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[1] STEM RUST (Races) TPMK

[2] LEAF RUST (Races) TLGG

[0] STRIPE RUST (Races) _____

[0] LOOSE SMUT

[2] POWDERY MILDEW

[0] BUNT

[ ] OTHER (Specify) _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SAWFLY

[2] APHID (Bydv.)

[0] GREEN BUG

[1] CEREAL LEAF BEETLE

[ ] OTHER (Specify) _____

HESSIAN FLY RACES: [0] GP [0] A [0] B [0] C [0] D [0] E [0] F [0] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering		Seed size	
Leaf size		Seed shape	
Leaf color		Coleoptile elongation	
Leaf carriage		Seedling pigmentation	

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

766 Wheat

18D. Exhibit D: Additional Description of Variety 766.

Since variety 766 has not been tested in comparison with any of the six cultivars listed in Exhibit C, average data on performance in Virginia and North Carolina from 1997 to 1999 are presented in Tables 1-3. Variety 766 is an early heading, medium stature, apically awnleted variety with moderate to good winter-hardiness and moderate straw strength. It has very good test weight, good yield potential and good milling and baking quality. Head emergence and plant height of variety 766 are similar to those of Pioneer 2580. Straw strength was moderate, but not as good as that of Pioneer 2580 or FFR555W. Test weights of variety 766 have been excellent and superior to that of FFR555W and Pioneer 2580. Milling quality is similar to that of Jackson and superior to that of Pioneer 2580 (Tables 4,5). Baking quality is similar to that of Madison and superior to that of Jackson and Pioneer 2580.

Variety 766 is resistant to powdery mildew and moderately resistant to leaf rust, glume blotch, wheat spindle streak virus and barley yellow dwarf virus (Tables 1-3). It is susceptible to stem rust and Hessian fly.

Table 1. Mean performance of VA96W-351 in preliminary soft red winter wheat nurseries in Blacksburg, Warsaw, and Painter, Virginia, and Kinston and Plymouth, North Carolina, 1997.

Entry	Rank	Line	Yield (bu/A)	Test Weight (lbs/bu)	Date Headed (Mar 31+)	Height (in.)	Leaf Rust (0-9)[2]	Powdery Mildew (0-9)	WSSV (0-9)	BYDV (0-9)	Septoria (0-9)
			(4)	(4)	(3)	(2)	(5)	(4)	(1)	(2)	(2)
1	16	VA96W-351	76	60.4	44	37	3	0	2	3	2
2	17	FFR 555W	75	58.6	50	36	4	4	2	3	3
3	8	Pioneer 2580	84	59.1	45	36	3	1	5	3	2
4	20	Massey	71	59.1	46	41	6	1	1	2	4
5	24	Saluda	64	60.9	49	36	4	4	6	4	3
6	16	Madison	76	58.2	43	38	5	2	0	2	3
7	18	Coker 9803	74	60.5	43	35	2	1	2	3	2
8	16	Gore	76	58.9	41	36	3	0	3	4	3
9	12	Pioneer 2643	80	59.7	43	31	4	0	3	2	2
10	82	Jackson	82	60.1	48	38	4	2	3	2	2
11	14	Coker 9835	77	58.2	48	33	2	2	2	3	3
LSD			6	0.4	1	1	1	1	2	1	1
Tst Avg.			77	59.0	46	36	3	1	2	3	3

[2]All 0-9 ratings indicated relative disease severity: 0=no disease present; 9=total infestation of the plant by disease.

Table 2. Mean performance of VA96W-351 in the Virginia Advance Wheat Test, 1998.

Entry	Rank	Line	Yield (bu/A)	Test Weight (Lb)	Date Headed (March 31+)	Height (in.)	Lodging (0.2-10)[2]	Powdery Mildew (0-9)[3]	Winter Kill (0-9)
			(2)[1]	(2)	(2)	(2)	(2)	(2)	(1)
1	5	VA96W-351	73	55.3	26	37	3.2	0	0
2	8	FFR 555W	70	53.5	31	38	0.9	4	0
3	1	Pioneer 2580	77	53.3	27	37	1.9	1	0
4	13	Massey	63	54.0	31	41	3.6	2	1
5	10	Jackson	68	54.7	30	37	3.8	3	1
6	16	Coker 9835	57	52.3	30	34	2.9	3	1
LSD (0.05)			13	1.8	8	4	2.4	1	na[4]
Test Avg.			69	53.5	29	37	2.3	2	1

[1] Numbers below column headings indicate the number of locations upon which data are based.

[2] Belgian lodging scale = Area x Intensity x 0.2. Area is rated on a scale from 1(plot unaffected) to 10 (entire plot affected and intensity is rated on a scale from 1 (plants standing upright) to 5 (plants lying totally flat on the ground).

[3] All 0-9 ratings indicate relative disease severity: 0 = no disease present; 9 = total infestation of the plant by disease.

[4] Winter kill data were recorded for only one replication.

Table 3. Mean performance of VA96W-351 in the 1998-99 Advance Wheat Test in Virginia and North Carolina.

Entry	Line	Yield (bu/A)	Test Weight (Lb)	Date Headed (March 31+)	Height (in.)	Lodging (0.2-10)[2]	Winter Kill (0-9)	Powdery Mildew (0-9)[3]	Leaf Rust (0-9)	Septoria (0-9)	BYDV (0-9)
		(4)[1]	(4)	(2)	(2)	(1)	(1)	(2)	(3)	(1)	(3)
1	VA96W-351	77.4	59.9	34	35	0.2	1	0	2	1	3
2	FFR 555W	70.4	58.4	39	34	0.3	3	5	5	1	4
3	Pioneer 2580	87.7	58.6	33	35	0.2	1	1	5	1	2
4	Pocahontas	85.9	59.7	32	35	0.2	1	1	5	1	3
5	Roane	89.3	61.6	38	34	0.2	0	0	4	1	1
6	Agripro Patton	79.3	58.7	35	37	0.4	0	2	1	1	3
7	Coker 9663	79.4	59.4	33	39	0.6	3	4	0	1	1
8	Madison	79.6	58.0	33	38	0.2	1	2	4	1	2
9	Pioneer 2643	84.5	59.6	33	31	0.2	1	1	5	1	3
LSD (0.05)		5.3	0.3	1	1	0.3	1	0.4	1	0.2	1
Test Avg.		84.5	59.1	35	35	0.3	1	1	3	1	2

[1] Numbers below column headings indicate the number of locations upon which data are based.

[2] Belgian lodging scale = Area x Intensity x 0.2. Area is rated on a scale from 1(plot unaffected) to 10 (entire plot affected and intensity is rated on a scale from 1 (plants standing upright) to 5 (plants lying totally flat on the ground).

[3] All 0-9 ratings indicate relative disease severity: 0 = no disease present; 9 = total infestation of the plant by disease.

Table 4. Soft wheat milling and baking quality of VA96W-351 1997 crop.

Entry	Line	Milling Quality Score	Baking Quality Score	Combined Quality Score	Micro T.W. (lb/bu)	Soft Equiv.	Flour Yield	Flour Prot.	Micro AWRC	Cookie Diam.	Top Gr.
1	VA96W-351	99.4	98.0	98.0	63.3	44.7	71.4	8.33	56.7	17.77	4
2	FFR 555W	104.2	98.3	98.3	61.7	51.4	71.8	8.15	56.3	17.4	3
3	Pioneer 2580	86.9	71.3	71.3	61.6	48.5	67.8	7.49	61.3	16.88	2
4	Massey	100.0	100.0	100.0	62.3	52.2	70.3	8.48	57.3	17.56	3
5	Madison	100.0	97.7	97.7	61.9	49.7	70.8	8.50	55.3	17.46	6
6	Jackson	99.6	86.7	86.7	63.3	54.0	69.8	8.00	59.1	17.06	1
7	Coker 9803	97.5	98.7	97.5	63.7	51.6	69.6	8.17	58	17.61	3
8	Coker 9835	104.3	98.1	98.1	62.2	59.5	70.5	7.09	61	18.09	5
9	Pioneer 2643	96.9	97.7	96.9	63.0	51.5	69.6	7.89	58.5	17.63	3

Table 5. Soft wheat milling and baking quality of VA96W-351 1998 crop.

Entry	Line	Milling Quality Score	Baking Quality Score	Combined Quality Score	Micro T.W. (lb/bu)	Soft Equiv.	Flour Yield	Flour Prot.	Micro AWRC	Cookie Diam.	Top Gr.
1	VA96W-351	94.5	96.0	94.5	60.19	52.22	72.14	9.72	56.1	17.76	5
2	FFR 555W	102.9	105.7	102.9	58.2	57.6	73.6	8.72	54.8	18.13	6
3	Pioneer 2580	90.4	94.3	90.4	58.3	59.0	70.2	8.04	56.7	17.45	4
4											
5	Massey	100.0	100.0	100.0	59.5	59.5	72.5	9.11	56.3	17.65	5
6	Jackson	90.5	79.1	79.1	60.0	59.5	69.9	9.42	60.2	17.14	3
7	Coker 9835	92.9	94.3	92.9	57.9	64.5	70.0	8.27	61.1	17.85	4

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Virginia Tech Intellectual Properties In.c Inc.	VA96W-351	766

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
1872 Pratt Dr. Suite 1625	540-951-9374	540-951-5292

7. PVPO NUMBER 200100132

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [x] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [x] YES [ ] NO
If no, give name of country

10. Is the applicant the original owner? [ ] YES [x] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

[x] YES [ ] NO If no, give name of country

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:

Original owner Virginia Polytechnic Institute and State University assigned its ownership to current owner Virginia Tech Intellectual Properties In. (see attached)

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

STD-470-E (07-97) *(Destroy previous editions).*
Electronic version designed using WordPerfect InForms by USDA-AMS-IMB.

ASSIGNMENT

PLANT GERMPLASM

56.019 VA96W-351

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY (hereinafter referred to as the "UNIVERSITY"), assigns to VIRGINIA TECH INTELLECTUAL PROPERTIES, INC. (hereinafter referred to as "VTIP") all rights, title and interest in and to all of the above-listed GERMPLASMS as held by the UNIVERISTY.

The UNIVERSITY, by its authorized agents, agrees that it will execute all necessary assignments as requested by VTIP, to facilitate the filing of patent applications and/or copyright registrations. It will render any reasonable assistance requested to aid in preparation of such applications and/or registrations.

The UNIVERSITY shall retain the right to make use of the GERMPLASMS for internal research and other non-commercial purposes without cost to the UNIVERSITY.

All royalties, rents, payments, or any cash receipts from the sale, assignment, transfer, licensing or use of the GERMPLASMS shall be the property of VTIP and shall be distributed according to the provisions of the Virginia Agricultural Experiment Station (VAES) Plant Germplasm Release Policy (PGRP).

Prior to the execution of this Assignment, the UNIVERSITY has not granted the right of license to make, use, or sell said GERMPLASM to anyone except to VTIP, nor has it otherwise encumbered its rights, title and interest in said GERMPLASM, and it will not execute any instrument in conflict with this Assignment.

IN WITNESS WHEREOF, the UNIVERSITY has caused this Assignment to be signed this 12 day of March, 2000.

VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

BY _____
MINNIS E. RIDENOUR
Executive Vice President

STATE OF VIRGINIA

COUNTY OF MONTGOMERY, to-wit:

The foregoing instrument was acknowledged before me this 12TH day of MARCH, 2000, by MINNIS E. RIDENOUR, EXEC. VP of Virginia Polytechnic Institute and State University, on behalf of said University.

Notary Public

My commission expires: 12/31/04